PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

GATES, Edward, R. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue

From the INTERNATIONAL BUREAU

600 Atlantic Avenue (PCT Rule 92bis.1 and Boston, MA 02210 Administrative Instructions, Section 422) **ETATS-UNIS D'AMERIQUE** Date of mailing (day/month/year) 19 March 1997 (19.03.97) Applicant's or agent's file reference IMPORTANT NOTIFICATION A0558/7008WO International filing date (day/month/year) International application No. 18 September 1996 (18.09.96) PCT/US96/14937 1. The following indications appeared on record concerning: X the applicant the inventor the agent the common representative State of Residence State of Nationality Name and Address INTRACEL CORPORATION 359 Allston Street Telephone No. Cambridge, MA 02139 United States of America Facsimile No. Teleprinter No. 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning: the nationality the residence the address the person the name State of Residence State of Nationality Name and Address INTRACEL CORPORATION 2005 N.W. Sammamish Road Telephone No. Issaquash, WA 98027 **United States of America** Facsimile No. Teleprinter No. 3. Further observations, if necessary: 4. A copy of this notification has been sent to: the designated Offices concerned X | the receiving Office the elected Offices concerned the International Searching Authority other: the International Preliminary Examining Authority

> The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Martine Lee

Telephone No.: (41-22) 730.91.11



	From the INTERNATIONAL BUREAU
PCT	То:
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 20 March 1997 (20.03.97)	GATES, Edward, R. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210 ETATS-UNIS D'AMERIQUE
Applicant's or agent's file reference	ILADODTANT NOTIFICATION
A0558/7008WO	IMPORTANT NOTIFICATION
International application No. PCT/US96/14937	International filing date (day/month/year) 18 September 1996 (18.09.96)
The following indications appeared on record concerning: X the applicant X the inventor	the agent the common representative
Name and Address	State of Nationality State of Residence
PILKINGTON, Glenn, R. 58 Winthrop Street West Newton, MA 02165 United States of America	Telephone No.
Officed States of Afficines	Facsimile No.
	Teleprinter No.
2. The International Bureau hereby notifies the applicant that the	ne following change has been recorded concerning:
the person the name X the add	
Name and Address	State of Nationality State of Residence AU US
PILKINGTON, Glenn, R. Suite 107 2005 N.W. Sammamish Road	Telephone No.
Issaquash, WA 98027 United States of America	Facsimile No.
	Teleprinter No.
3. Further observations, if necessary:	
4. A copy of this notification has been sent to:	X the designated Offices concerned
X the receiving Office the International Searching Authority	the elected Offices concerned
the International Preliminary Examining Authority	other:
	Authorized officer
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Martine Lee
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 730.91.11

	From the INTERNATIONAL BUREAU			
PCT	То:			
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 19 March 1997 (19.03.97)	GATES, Edward, R. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210 ETATS-UNIS D'AMERIQUE			
Applicant's or agent's file reference				
A0558/7008WO	IMPORTANT NOTIFICATION			
International application No. PCT/US96/14937	International filing date (day/month/year) 18 September 1996 (18.09.96)			
The following indications appeared on record concerning: X the applicant X the inventor X The following indications appeared on record concerning: X The following indications appeared on record c	the agent the common representative			
Name and Address GILMOUR, Page, S.	State of Nationality State of Residence			
CHANOCK, Robert, M. CROWE, James, E., Jr. MURPHY, Brian, R.	Telephone No.			
	Facsimile No.			
	Teleprinter No.			
The International Bureau hereby notifies the applicant that the the person				
Name and Address	State of Nationality State of Residence US US			
	Telephone No.			
	Facsimile No.			
	Teleprinter No.			
3. Further observations, if necessary:				
4. A copy of this notification has been sent to:				
X the receiving Office	X the designated Offices concerned			
the International Searching Authority	the elected Offices concerned			
the International Preliminary Examining Authority	other:			
	Authorized officer			
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Martine Lee			
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 730.91.11			

	From the INTERNATIONAL BUREAU
PCT	То:
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year)	GATES, Edward, R. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210 ETATS-UNIS D'AMERIQUE
15 July 1997 (15.07.97)	
Applicant's or agent's file reference A0558/7008WO	IMPORTANT NOTIFICATION
International application No. PCT/US96/14937	International filing date (day/month/year) 18 September 1996 (18.09.96)
The following indications appeared on record concerning: X the applicant X the inventor	the agent the common representative
Name and Address GILMOUR, Page, S. 46-1B Garden Circle	State of Nationality State of Residence US US Telephone No.
Waitham, MA 02154 ETATS-UNIS D'AMERIQUE	Facsimile No.
	Teleprinter No.
2. The International Bureau hereby notifies the applicant that the the person the name X the add	
Name and Address	State of Nationality State of Residence US US
GILMOUR, Page, S. Suite 107 2005 N. W. Sammamish Road Issaquash, WA 98027	Telephone No.
ETATS-UNIS D'AMERIQUE	Facsimile No.
	Teleprinter No.
3. Further observations, if necessary:	
4. A copy of this notification has been sent to:	
X the receiving Office	the designated Offices concerned
the International Searching Authority X the International Preliminary Examining Authority	X the elected Offices concerned other:
	Authorized officer
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Martine Lee
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PCT

RITONO	2 4	DEC	1997	
WIPO	٢	UT	n. To purpos standar	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or	agent	's file reference	FOR FURTHER A	CTION See	Notification of Transmittal of International
AO558/700)8W0			Prel	liminary Examination Report (PCT/IPEA/416)
International a	pplica	ition No.	International filing date (day)	/month/year)	Priority date (day/month/year)
PCT/US96	/1493	37	18/09/1996		18/09/1995
International f	atent	Classification (IPC) or n	national classification and IPC		
A61K39/42	2				
Applicant					
INTRACEL	COI	RPORATION et al.	· · · · · · · · · · · · · · · · · · ·		
				repared by this In	ternational Preliminary Examining Authority
and is t	ransn	inted to the applicant	according to Article 36.		,
2 This RF	POR	T consists of a total o	of 4 sheets, including this	cover sheet.	
2. 11113 1112	011	1 consists of a total c	n + oncoto, moldanig the	30731 311331.	
□ Tḥ	is rep	ort is also accompan	ied by ANNEXES, i.e., she	ets of the descrip	tion, claims and/or drawings
wh be	iich h fore t	ave been amended a his Authoritv (see Ru	nd are the basis for this rep le 70.16 and Section 607 o	oort and/or sheet: f the Administrati	s containing rectifications made ve Instructions under the PCT).
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			,
These a	annex	es consist of a total of	of sheets.		
0 This was			Jatina ta tha fallawina itawa		
3. This rep	оп с	ontains indications re	elating to the following items	> .	
1	×	Basis of the report			
11		Priority			
111		Non-establishment	of opinion with regard to no	ovelty, inventive s	step and industrial applicability
IV		Lack of unity of inve	ention		•
٧	×		nt under Article 35(2) with r nations supporting such sta		inventive step or industrial applicability;
VI		Certain documents	cited		
VII	×	Certain defects in the	he international application		
VIII	\boxtimes	Certain observation	ns on the international appli	cation	
Date of subr	nissio	of the demand		Date of completion	of this report
17/04/199	7				2 2. 12. 97
Name and n	nailing	address of the IPEA/		Authorized officer	(SOES M.)
	_	0-4			The state of the s
	cur	opean Patent Office			

Hinchliffe, P

Telephone No. (+49-89) 2399-8431

Fax: (+49-89) 2399-4465

D-80298 Munich

Tel. (+49-89) 2399-0, Tx: 523656 epmu d

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No. PCT/US96/14937

ı	Ra	sis	of	the	re	port
н	u	313	v	1110		,,,,

l.	Bas	is of the report			·	
1.	resp	report has been di conse to an invitation report since they do	n under Articl	e 14 are i	substitute sheets which have been furnished to the receiving Office in referred to in this report as "originally filed" and are not annexed to ents.):	7
	Des	scription, pages:				
	1-63	3	as originally f	iled		
	Clai	ims, No.:				
	1-17	7	as originally f	iled		
2.	The	amendments have	resulted in th	e cancell	llation of:	
		the description,	pages:			
		the claims,	Nos.:			
		the drawings,	sheets:			
3.		This report has be considered to go b	en established beyond the dis	d as if (so sclosure a	ome of) the amendments had not been made, since they have been as filed (Rule 70.2(c)):	
4.	Add	ditional observation	s, if necessary	/ :		
		,				
۷.	Rea app	asoned statement plicability; citation	under Article s and explan	e 35(2) w ations si	vith regard to novelty, inventive step or industrial supporting such statement	
1.	Sta	itement				
	Nov	velty (N)	Yes: No:	Claims Claims		
	Inv	entive step (IS)	Yes: No:	Claims Claims		

Industrial applicability (IA)

Yes:

No:

Claims 1-13 Claims 14-17

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US96/14937

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

SECTION V

- The subject matter of the claims concerns pharmaceutical compositions and uses 1. of these compositions comprising antibodies raised to RSV F glycoprotein epitope. The compositions fulfil the requirements of Article 33(2) and 33(3) PCT because the antibodies are defined by specific sequences not shown or derivable from the prior art documents cited in the I.S.R.
- For the assessment of the present claims 14-17 on the question whether they 2. are industrially applicable, no unified criteria exist in the PCT. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicamnt for a new medical treatment. 1.

SECTION VII

The imprecise statement in the description on page 32 implies that the subject-1. matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them (see also the PCT Guide-lines, PCT/GL/3 III, 4.3a).

SECTION VIII

The introduction of the present application is inaccurate insofar as HIV infection 1. is not restricted to the homosexual population (see line 21). Consequently the reference should be removed in order to satisfy the requirments of Rule 5(ii) PCT.

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

A61K 39/42, 48/00, 51/00, C07K 16/10, G01N 33/569, 33/577

(11) International Publication Number:

WO 97/10846

(43) International Publication Date:

27 March 1997 (27.03.97)

(21) International Application Number:

PCT/US96/14937

A1

(22) International Filing Date:

18 September 1996 (18.09.96)

(30) Priority Data:

60/003,931

18 September 1995 (18.09.95) US

(74) Agent: GATES, Edward, R.; Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210 (US).

(71) Applicants (for all designated States except US): INTRACEL CORPORATION [US/US]; 359 Allston Street, Cambridge, MA 02139 (US). THE GOVERNMENT OF THE UNITED STATES, represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; National Institutes of Health, Office of Technology Transfer, 6011 Executive Boulevard, Rockville, MD 20852 (US).

(72) Inventors; and

(75) Inventors, Applicants (for US only): PILKINGTON, Glenn, R. [-/US]; 58 Winthrop Street, West Newton, MA 02165 (US). GILMOUR, Page, S. [-/US]; 46-1B Garden Circle, Waltham, MA 02154 (US). CHANOCK, Robert, M. [-/US]; 7001 Longwood Drive, Bethesda, MD 20817 (US). CROWE, James, E., Jr. [-/US]; 1535 Aberdeen Drive, Brentwood, TN 37027 (US). MURPHY, Brian, R. [-/US]; 5410 Tuscarawas Road, Bethesda, MD 20816 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: NEUTRALIZING MONOCLONAL ANTIBODIES TO RESPIRATORY SYNCYTIAL VIRUS

(57) Abstract

The present invention relates to the identification and cloning of a novel neutralizing human monoclonal antibody to the Respiratoy Syncytial Virus. The invention provides such antibodies, fragments of such antibodies retaining RSV-binding ability, chimeric antibodies retaining RSV-binding ability, and pharmaceutical compositions including such antibodies. The invention further provides for isolated nucleic acids encoding the antibodies of the invention and host cells transformed therewith. Finally, the invention provides for diagnostic and therapeutic methods employing the antibodies and nucleic acids of the invention.

Internatio pplication No PCT/US 96/14937

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61K39/42 A61K48/00
G01N33/577

A61K51/00

C07K16/10

G01N33/569

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 6 A61K C07K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCU	MENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94 06448 A (SCRIPPS RESEARCH INST; US GOV AS REPRESENTED BY THE (US); BURTON D) 31 March 1994 cited in the application see the whole document	1-12,14, 15
X	WO 93 20210 A (SCOTGEN LTD ;TAYLOR GERALDINE (GB); STOTT EDWARD JAMES (GB)) 14 October 1993 see the whole document	1-12,14, 15
X	WO 94 17105 A (MEDIMMUNE INC) 4 August 1994 see the whole document	1-12,14, 15
X	WO 95 04081 A (ORAVAX INC) 9 February 1995 see the whole document	1-12,14, 15

*Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance E earlier document but published on or after the international filling date L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O document referring to an oral disclosure, use, exhibition or other means P document published prior to the international filling date but later than the priority date claimed	To later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention. The document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone. The document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. The document member of the same patent family
Date of the actual completion of the international search 28 January 1997	Date of mailing of the international search report 1 2. 02. 97
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Authorized officer Müller, F

Further documents are listed in the continuation of box C.

X Patent family members are listed in annex.

Internation No PCT/US 96/14937

C (Contra-	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/US 96/14937
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 800 078 A (PRINCE GREGORY ET AL) 24 January 1989 see the whole document	1-12,14,
X	WO 92 04381 A (SCOTGEN LTD) 19 March 1992 cited in the application see the whole document	1-12,14, 15
Y	PROC. NATL. ACAD. SCI. USA, vol. 89, - November 1992 pages 10164-10168, XP002019160 BARBAS C. F. ET AL.,: "Human monoclonal Fab fragments derived from a combinatorial library bind to respiratory syncytial virus F glycoprotein and neutralize infectivity" cited in the application see the whole document	13,16,17
Y	WO 95 03832 A (UNIV JEFFERSON ;DUAN LINGXUN (US); POMERANTZ ROGER (US)) 9 February 1995 see page 3 ff, claims	13,16,17
A	BIO/TECHNOLOGY, vol. 9, - March 1991 pages 266-271, XP002019135 TEMPEST P.R. ET AL.,: "Reshaping a human monoclonal antibody to inhibit human respiratory syncytial virus infection in vivo" cited in the application see the whole document	1-17

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

nte tional application No.

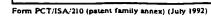
PCT/US 96/14937

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: Remark: Although claim(s) 14-17 is(are) directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

Information on patent family members

Internatio upplication No PCT/US 96/14937

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9406448	31-03-94	CA-A- 21 EP-A- 06 FI-A- 9 JP-T- 85	27193 44043 71927 51164 05520 50881	12-04-94 31-03-94 20-09-95 12-05-95 18-06-96 15-05-95
WO-A-9320210	14-10-93	AU-A- 39 CA-A- 21 EP-A- 06 JP-T- 75	00093 33662 36182 08401 02445	08-11-93 14-10-93 01-02-95 21-09-95 05-01-95
WO-A-9417105	04-08-94	AU-A- 36	60893	15-08-94
WO-A-9504081	09-02-95	CA-A- 21 CN-A- 11 EP-A- 07	50094 67835 32516 24602 34411	28-02-95 09-02-95 02-10-96 07-08-96 09-07-96
US-A-4800078	24-01-89	NONE		
WO-A-9204381	19-03-92	AU-A- 85 CA-A- 20 EP-A- 05 JP-T- 65 NZ-A- 2	54827 05891 91335 48190 01152 39728 50415	24-11-94 30-03-92 12-03-92 30-06-93 10-02-94 26-07-95 27-06-95
WO-A-9503832	09-02-95	CA-A- 21	51394 68349 21350	28-02-95 09-02-95 17-07-96





PATENT COOPERATION TO AT

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER SE	ee Notification of Tran Form PCT/ISA/220) a	smittal of International Search Reports s well as, where applicable, item 5 below.
A0558/7008W0	ACTION		i a) Dining Data (day/monthingar)
International application No.	International filing date(day)	month/year) (Ear	rliest) Priority Date (day/month/year)
PCT/US 96/ 14937	18/09/1996		18/09/1995
Applicant			
INTRACEL CORPORATION et a	1.		
This International Search Report has bee according to Article 18. A copy is being to	n prepared by this Internation transmitted to the Internationa	al Searching Authority I Bureau.	and is transmitted to the applicant
This International Search Report consists	s of a total of 4	sheets.	
It is also accompanied by a cop	y of each prior art document of		
	<u> </u>	<u> </u>	
		* *	
1. X Certain claims were found unser	archable (see Box 1).		
2. Unity of invention is lacking (se	e Box II).		
3. X The international application of international search was carried	ontains disclosure of a nucleoti d out on the basis of the seque	de and/or amino acid s nce listing	equence listing and the
L	d with the international applica	•	
X fur	nished by the applicant separat		
	but not accompanied by matter going beyond the	disclosure in the inter	national application as filed.
* <u></u>	,		
Tra	anscribed by this Authority		
, , , , , , , , , , , , , , , , , , ,	text is approved as submitted		
the	text has been established by t	his Authority to read a	as follows:
5. With regard to the abstract,			•
X the	e text is approved as submitted		
⊢ Bo	x III. The applicant may, with	in one month from the	, by this Authority as it appears in e date of mailing of this International
Se	arch Report, submit comments	s to this Authority.	
6. The figure of the drawings to be put	blished with the abstract is:		
	suggested by the applicant.		X None of the figures.
	cause the applicant failed to su		
be	cause this figure better charact	enzes the invention.	

International application No.

PCT/US 96/14937

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: Remark: Although claim(s) 14-17 is(are) directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

PCT/US 96/14937

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 A61K39/42 A61K48/00 G01N33/577

A61K51/00

C07K16/10

G01N33/569

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 6 A61K C07K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUM	DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
х	WO 94 06448 A (SCRIPPS RESEARCH INST ;US GOV AS REPRESENTED BY THE (US); BURTON D) 31 March 1994 cited in the application see the whole document	1-12,14, 15		
X	WO 93 20210 A (SCOTGEN LTD ;TAYLOR GERALDINE (GB); STOTT EDWARD JAMES (GB)) 14 October 1993 see the whole document	1-12,14, 15		
X	WO 94 17105 A (MEDIMMUNE INC) 4 August 1994 see the whole document	1-12,14, 15		
X	WO 95 04081 A (ORAVAX INC) 9 February 1995 see the whole document	1-12,14, 15		
	-/			

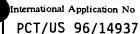
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
28 January 1997	1 2. 02. 97
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Müller, F

1

* Special categories of cited documents:

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.



C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. US 4 800 078 A (PRINCE GREGORY ET AL) 24 1-12,14, Χ 15 January 1989 see the whole document WO 92 04381 A (SCOTGEN LTD) 19 March 1992 1-12,14, X cited in the application 15 see the whole document PROC. NATL. ACAD. SCI. USA, 13,16,17 Υ vol. 89, - November 1992 pages 10164-10168, XP002019160 BARBAS C. F. ET AL.,: "Human monoclonal Fab fragments derived from a combinatorial library bind to respiratory syncytial virus F glycoprotein and neutralize infectivity" cited in the application see the whole document Υ WO 95 03832 A (UNIV JEFFERSON ; DUAN 13,16,17 LINGXUN (US); POMERANTZ ROGER (US)) 9 February 1995 see page 3 ff, claims 1-17 Α BIO/TECHNOLOGY. vol. 9, - March 1991 pages 266-271, XP002019135 TEMPEST P.R. ET AL., : "Reshaping a human monoclonal antibody to inhibit human respiratory syncytial virus infection in vivo" cited in the application see the whole document

1

information on patent family members

International Application No PCT/US 96/14937

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A-9406448	31-03-94	AU-A- 4927193 CA-A- 2144043 EP-A- 0671927 FI-A- 951164 JP-T- 8505520 NO-A- 950881	12-04-94 31-03-94 20-09-95 12-05-95 18-06-96 15-05-95
WO-A-9320210	14-10-93	AU-A- 3900093 CA-A- 2133662 EP-A- 0636182 JP-T- 7508401 ZA-A- 9302445	08-11-93 14-10-93 01-02-95 21-09-95 05-01-95
WO-A-9417105	04-08-94	AU-A- 3660893	15-08-94
WO-A-9504081	09-02-95	AU-A- 7450094 CA-A- 2167835 CN-A- 1132516 EP-A- 0724602 US-A- 5534411	28-02-95 09-02-95 02-10-96 07-08-96 09-07-96
US-A-4800078	24-01-89	NONE	
WO-A-9204381	19-03-92	AU-B- 654827 AU-A- 8505891 CA-A- 2091335 EP-A- 0548190 JP-T- 6501152 NZ-A- 239728 NZ-A- 250415	24-11-94 30-03-92 12-03-92 30-06-93 10-02-94 26-07-95 27-06-95
WO-A-9503832	09-02-95	AU-A- 7551394 CA-A- 2168349 EP-A- 0721350	28-02-95 09-02-95 17-07-96